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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,000	12/18/2001	Nigel Dunn-Coleman	GC696	9426
7590 05/19/2004				
VICTORIA L. BOYD Genencor International, Inc. 925 Page Mill Road Palo Alto, CA 94034-1013				
EXAMINER RAO, MANJUNATH N				
ART UNIT		PAPER NUMBER		
1652				

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

10/027,000

Applicant(s)

DUNN-COLEMAN ET AL.

Examiner

Manjunath N. Rao, Ph.D.

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 May 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ they raise the issue of new matter (see Note below);
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See attached.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 2, 4-17, 19-20, 23-24 and 26.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

Manjunath N. Rao, Ph.D.
Primary Examiner
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Claims 2, 4-17, 19-20, 23-24 and 26 are still pending and under consideration in this application.

The amendment filed on 5-5-04 in response to the final rejection has been considered and ENTERED but does not place the application in condition for allowance because of the following.

While applicant's amendment and arguments does overcome the previous rejections under 35 U.S.C. 112, 1st paragraph (for recitation of new matter) and under 35 U.S.C. 112, 2nd paragraph, they are not persuasive to overcome the rejection under 35 U.S.C. 112, 1st paragraph.

Examiner continues to maintain the rejection of claims 1-17, 19-20, 26 under 35 U.S.C. 112, first paragraph, as not enabled (see previous Office action) to the remaining claims 2, 4-17, 19-20, 23-24 and 26.

In response to the previous Office action, applicant has traversed the above rejection arguing that the specification need not teach one skilled in the art how to determine whether each embodiment within the scope of the claims is operable, rather must teach how to make or use each embodiment within the scope of the claims without undue experimentation. Examiner does agree with the applicant on this matter. Next, applicant argues with respect to items A and B, that there are well known methods on how to isolate nucleotides encoding β -glucosidase or inactivate a gene and therefore a skilled artisan in the art, given the present β -glucosidase would be able to employ any of the known methods to isolate said polynucleotide or homolog thereof. Applicant also argues that current claims do not depend on the method used to isolate the

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nucleotide or the method to inactivate the gene. Examiner respectfully disagrees. This is because fungi are a highly diverse group of microorganisms with different characteristics and culture and nutritional requirements and there is no single method or culture condition that can be used for any given fungi including those that have been discovered and not discovered so far. Without knowing how to cultivate the fungi it would be impossible for those skilled in the art to use the well known method of DNA isolation and apply the same on a fungi that he or she has not obtained or been able to cultivate.

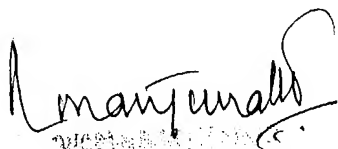
With respect to item C, applicant argues that 10 sequences having the highest identity but less than 46% identity were all annotated as β -glucosidases and those skilled in the art would know how to align proteins, identify the motifs and would be able to determine the conserved regions that would be less desirable for modification. Applicant also argues that claims require a functional β -glucosidase and assays are provided in the specification. While Examiner agrees that all the above is possible, claiming polynucleotides as claimed in the instant application still requires the specification to provide specific amino acid residues that can be modified rather than identifying only those "conserved regions" that cannot be modified. Without such guidance those skilled in the art would be subjected to make and test each and every permutation and combination of amino acid sequences which leads to "undue experimentation". If applicants have identified specific variants and if they have ample support for those variants, then Examiner will have no hesitation to exclude those specific variants from the above rejection.

Applicants continue their argument that numerous β -glucosidases that have even lower identity than what is presently claimed are known in the art, and that, there would appear to be large tolerance for modification and that the specification further provides the rationale for

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modifying the sequence in example at page 23. While that may be so, the specification does not provide guidance for modifying specific residues in the sequence. Applicant also argues that a skilled artisan would be able to determine which residues would be likely candidates for modification using for example US 4,760,025. Again, while that may be so, the specification still lacks guidance for the task of determining specific residues in the given SEQ ID NO:2 which leads to undue experimentation. Therefore, the above rejection is maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manjunath N. Rao, Ph.D. whose telephone number is 571-272-0939. The examiner can normally be reached on 7.00 a.m. to 3.30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy can be reached on 571-272-0928. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.



Manjunath N. Rao
May 14, 2004